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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/902,839

07/11/2001

Hiroaki Tamai

FUJR 18.823

9504

26304

7590

08/09/2005

KATTEN MUCHIN ROSENMAN LLP  
575 MADISON AVENUE  
NEW YORK, NY 10022-2585

EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/902,839	TAMAI, HIROAKI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Andrew C. Lee	2664	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zheng et al. (U.S. Patent No. 6611522 B1) in view of Lin et al. (U.S. Patent No. 6272143 B1).

Regarding Claims 1 and 8, Zheng et al. discloses the limitation of a packet switch apparatus and method sending a packet stored in a common memory to a plurality of paths having different bit rates (column 3, lines 26 – 28; column 5, lines 1 – 8; lines 33 – 38), comprising: storing means for storing a packet to be sent to at least one path in a free space of the common memory (Fig. 33, element 610; column 28, lines 52 – 57); enqueueing means for enqueueing a pointer indicating said packet stored in the shared memory to queues corresponding to paths to which said packet is scheduled to be sent (column 30, lines 2 – 4; lines 12 – 15); sending means for dequeuing the pointer enqueued by said enqueueing means for each of the queues corresponding to the paths (column 30, lines 26 – 30) and sending the packet indicated by the pointer dequeued to the paths corresponding to the queues at the respective transmission bit rate thereof (column 30, lines 30 – 32); and free-address management means for setting the free

Art Unit: 2664

space of the common memory that is occupied by the packet to a busy state (column 26, lines 46 – 54) and changing the free space that is now in the busy state to a free state when the pointer indicating said packet is dequeued or discarded from all of the queues to which said packet is scheduled to be sent (column 26, lines 54 – 60).

discarding means for discarding, on a queue basis, pointers enqueued by said enqueueing means exceeds a predetermined threshold value (column 29, lines 56 – 64);

Zheng et al. does not disclose expressly pointers from a head thereof in which it is determined that the number of pointers. Lin et al. discloses the limitation of pointers from a head thereof in which it is determined that the number of pointers (column 2, lines 36 – 37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Zheng et al. to include pointers from a head thereof in which it is determined that the number of pointers such as that taught by Lin et al. in order to provide a method and system for selective pushout in packet communication queuing modules with shared buffer (as suggested by Lin et al., see column 1, line 9 – 11).

Regarding Claims 2 and 9, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein said sending means comprises schedulers provided to the respective paths (Fig. 8, element 124; Fig. 9, element 144; column 30, lines 39 – 52), said schedulers dequeuing the pointer enqueued by said enqueueing means (column 30, lines 37 – 39).

Regarding Claims 3 and 10, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein the paths include a virtual

path to which an arbitrary output bit rate based on an ensured band is designated (column 13, lines 42 – 46; lines 52 – 54).

Regarding Claims 4, 5, 11 and 12, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein said discarding means sets a discard initiation threshold value for each of the queues (column 2, lines 18 – 27; lines 32 – 36; lines 52 – 56), and starts to discard pointers from one of the queues if the number of pointers enqueued to said one of the queues exceeds said discard initiation threshold value (column 29, lines 56 – 64).

Regarding Claims 6 and 13, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein said free-address management means manages status of enqueueing and dequeuing of pointers on the path basis by using a set of flags that is provided for each address of the common memory, the flags respectively corresponding to the paths (column 28, lines 58 – 62).

Regarding Claims 7 and 14, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein said free-address management means returns the address of the free space to the free state when said free-address management means turns ON all of the set of flags related to each of the paths (column 21, lines 12 – 17; lines 21 – 25; column 28, lines 58 – 62), said all of the set of flags including a flag related to a path to which said packet is not scheduled to be sent, a flag related to a path to which said packet has been sent, and a flag related to a path in which the pointer indicating said packet has been discarded (column 21, lines 43 – 65) .

***Response to Arguments***

3. Applicant's arguments with respect to claims 1 - 8 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

Art Unit: 2664

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL

Aug 06, 2005

  
Ajit Patel  
Primary Examiner